



User's Manual

Ethernet Interface

Rev. 5.04

SRP-270

SRP-275

SRP-280

SRP-350

SRP-350plus

SRP-370 / 372

SRP-770

SRP-770II / 770IIE

SLP-T400 / T400E

SLP-T403 / T403E

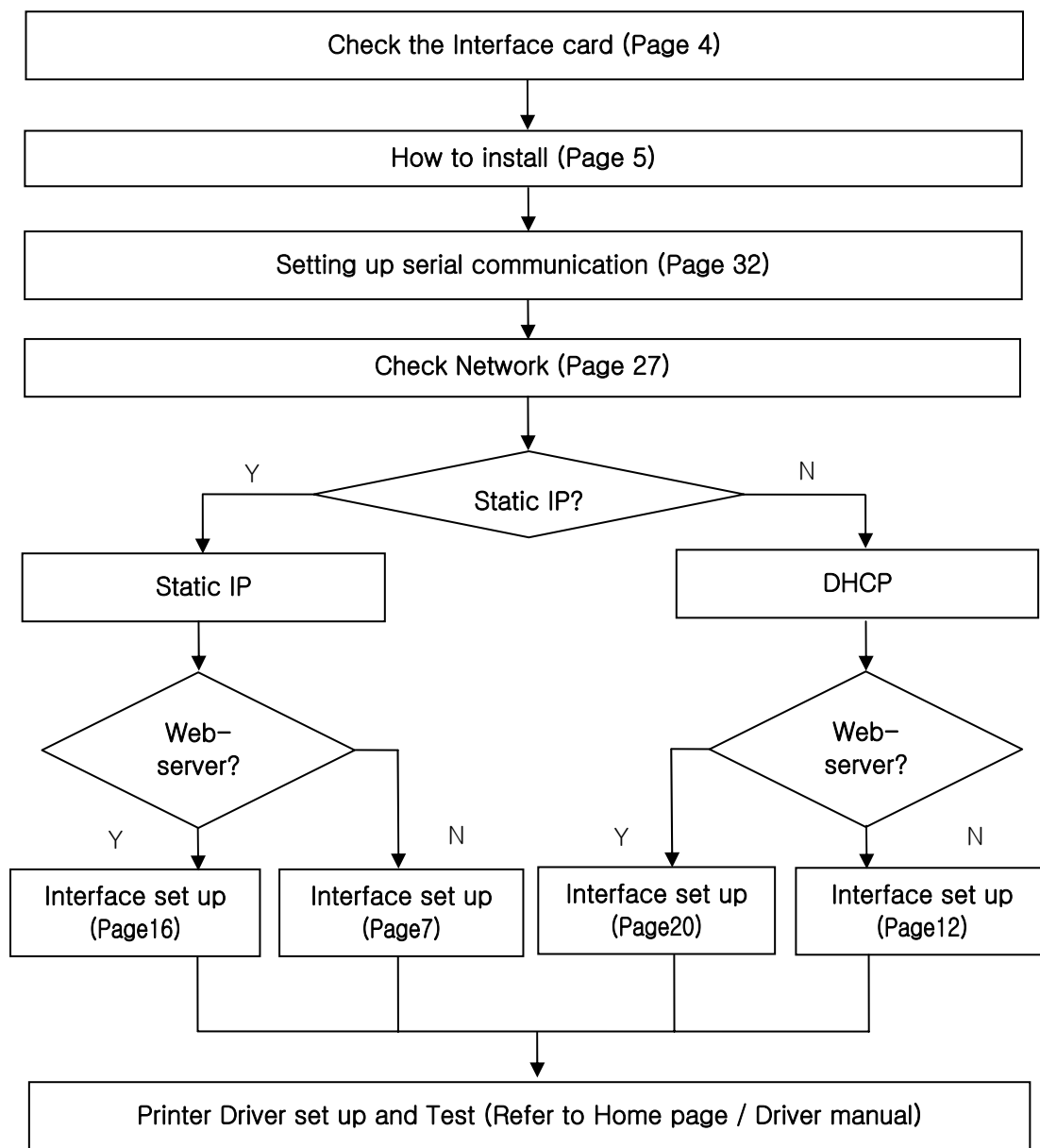
SLP-D400 / D400E

SLP-D403 / D403E

■ Table of contents

1. Interface setting Guiding.....	3
2. Manual Information.....	4
3. Interface card and available printer.....	4
4. How to install.....	5
5. Specifications.....	6
5-1 Hardware version.....	6
5-2 Configuration Tool.....	6
6. Configuration Tool.....	7
6-1 Static IP interface set up	7
6-2 DHCP interface set up	12
7. Web Server	16
7-1 Static IP interface set up	16
7-2 DHCP interface set up	20
8. Ethernet test by using Windows test page.....	21
9. How to check Static IP or DHCP	27
10. Factory Reset	29
11. Function Key set up.....	30
[Appendix 1] Details of interface card.....	31
[Appendix 2] Hardware version and Configuration Tool	31
[Appendix 3] Setting up serial communication.....	32

1. Interface setting Guiding

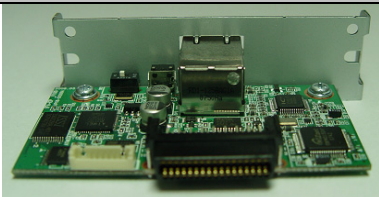


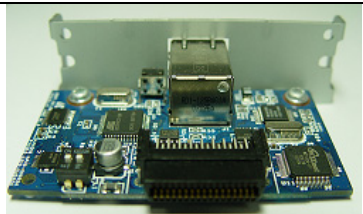



2. Manual Information

The purpose of this manual is to provide information on the operation and usage instructions of the Ethernet Interface for the BIXOLON Printers.

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

3. Interface card and available printer

Interface Type	Printer	Interface Card	Hardware Version	Picture
Ethernet To Parallel	SRP-350 SRP-350Plus	IFA-EP TYPE	V1.x.x	
	SRP-275	IFC-EP TYPE	V1.x.x	
	SLP-T400E SLP-T403E SLP-D400E SLP-D403E	-	-	ON Board
Ethernet To Serial	SRP-770 SRP-770II SLP-T400 SLP-T403 SLP-D400 SLP-D403	IFA-EO TYPE	V3.x.x	
	SRP-770IIE	-	-	ON Board
	SRP-270 SRP-280 SRP-350 SRP-350Plus SRP-370 SRP-372	IFA-E TYPE	V5.x.x	
	SRP-275	IFC-E TYPE (Discontinued)	V5.x.x	

4. How to install

- 1) Check the interface version

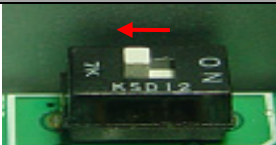

[Note]

Each version uses its own Configuration Tool.

- 2) Turn of the printer and insert the interface card.

[Note]

IFA-EP supports SRP-350 and SRP-350plus. When a user installs IFA-EP on printer, user can select a model by using dip-switch of IFA-EP.

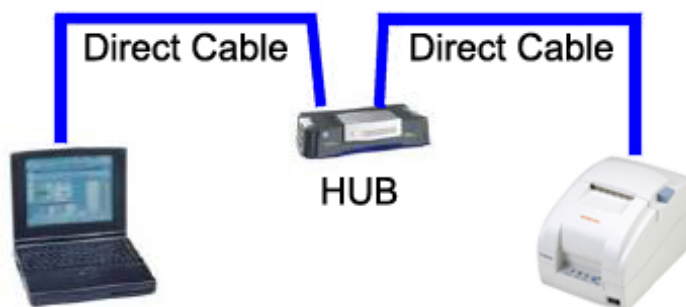
Interface Card	Printer	Picture
IFA-EP TYPE	SRP-350	
	SRP-350plus	

- 3) Set the baud rate (Serial speed)

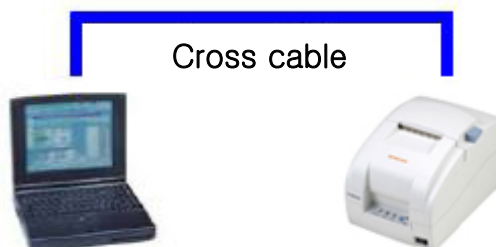
(Refer to [Appendix 3])

- 4) Connect LAN cable to the interface card and turn on the printer.

- (1) Use **direct cable** to connect to HUB (Switch).



- (2) Use **cross cable** to connect to LAN card of computer.







[Note]

You can use IFA/C-E TYPE (after V5.0.0) or IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E regardless of cable type.

5. Specifications

5-1 Hardware version

Hardware version is marked on the label on the interface card bracket.
 IFA-E TYPE (V3.x.x), IFA-EO TYPE (V3.x.x) doesn't have Function key.

Interface Card	Picture
IFA-EP TYPE	 A green Ethernet interface card with a BIXOLON label. The label includes: MODEL: IFA-EP, VER.: V1.00, MAC ADDRESS: 00:15:94:80:00:0A, and BIXOLON Co., Ltd. MADE IN KOREA >PET<.
IFC-EP TYPE	 A white Ethernet interface card with a BIXOLON label. The label includes: MODEL: IFC-EP TYPE, VER.: V1.00, MAC ADDRESS: 00:15:94:80:00:3E, and BIXOLON Co., Ltd. MADE IN KOREA >PET<.
IFA-E TYPE	 A green Ethernet interface card with a BIXOLON label. The label includes: MODEL: IFA-E TYPE, VER.: V5.0.0, MAC ADDRESS: 00:15:94:10:19:37, and BIXOLON Co., Ltd. MADE IN KOREA >PET<.
IFC-E TYPE (Discontinued)	 A white Ethernet interface card with a BIXOLON label. The label includes: MODEL: IFC-E TYPE, VER.: V5.0.0, MAC ADDRESS: 00:15:94:30:1A:20, and BIXOLON Co., Ltd. MADE IN KOREA >PET<.

[Note]

- The DIP switch on the interface board should always be OFF.

5-2 Configuration Tool

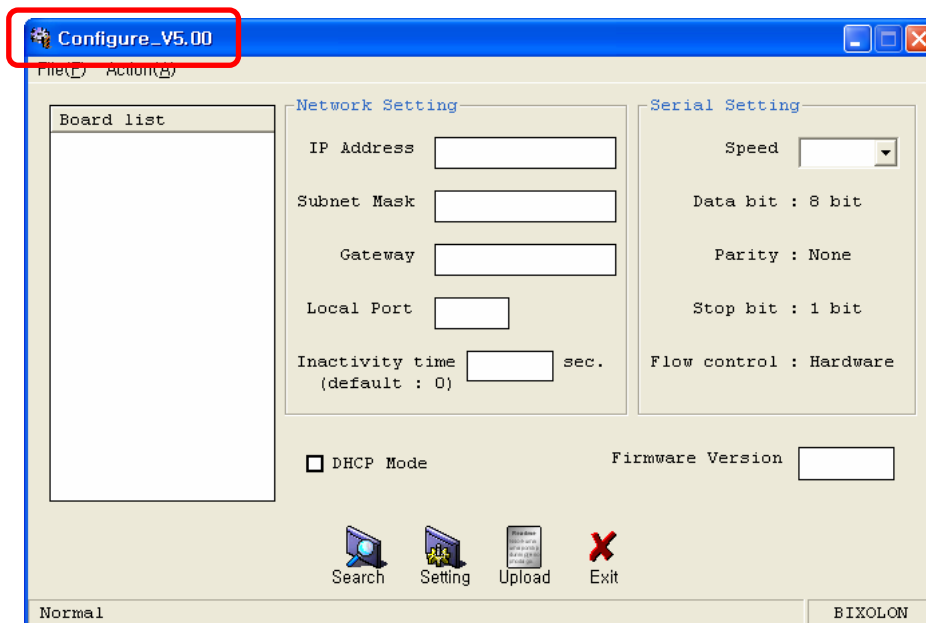
BIXOLON provides 2 types of network and serial communication set up utilities as a below.

- Configure_Vx.x.x.exe
- Web Server

6. Configuration Tool

6-1 Static IP interface set up

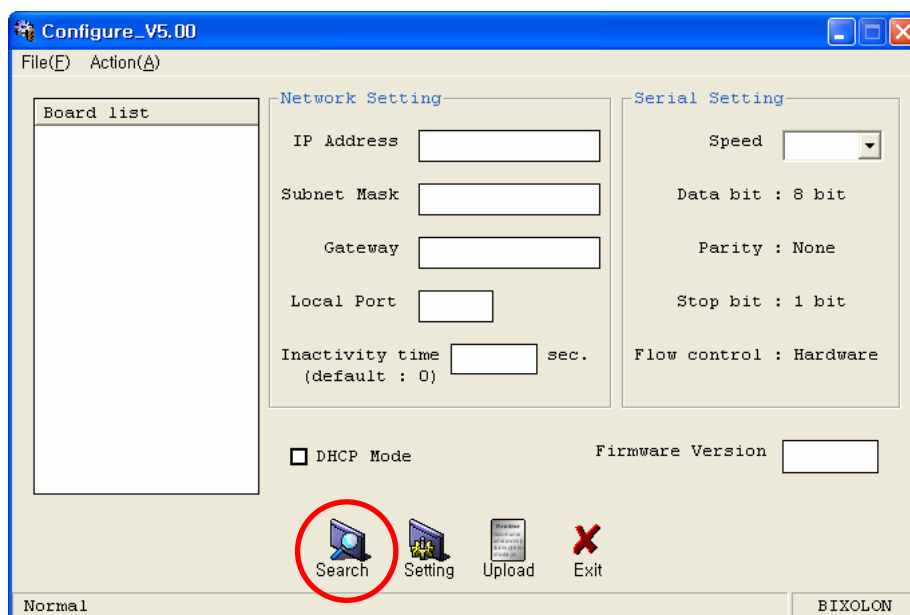
- 1) Turn on the printer.
- 2) Execute **Configure Tool**.



[Note]

- Use proper Configuration Tool dependent on hardware version

- 3) Click **Search**.

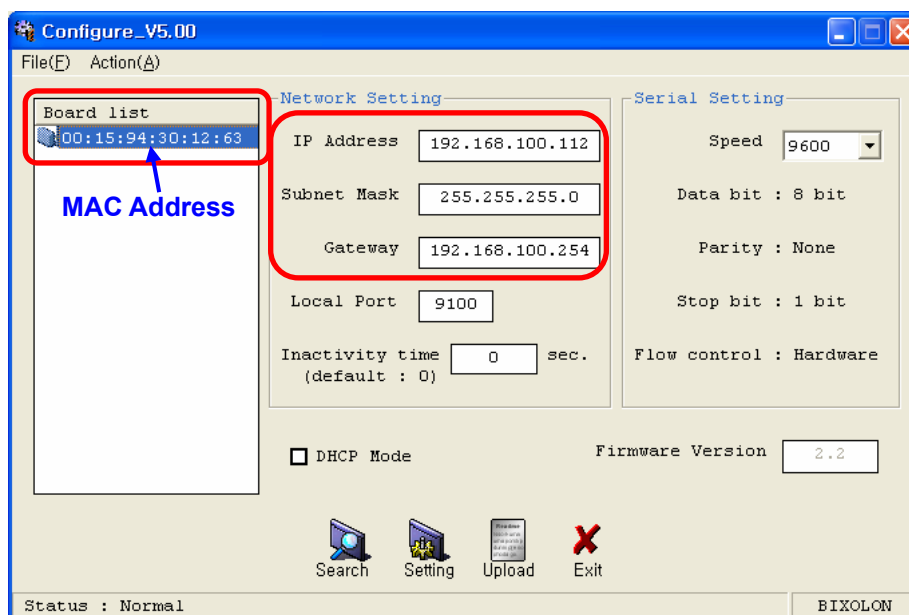


[Note]

- If Windows Security Alert pops up, please press Unblock.



- 4) Select MAC Address in **Board list** and **set up Network Setting**.



[Note]

- If many MAC addresses appear, refer to the MAC address on the label of the interface card. Ask the Network administrator IP and its related information.

- If you are not aware of Subnet Mask, refer to the below.

When the IP address is

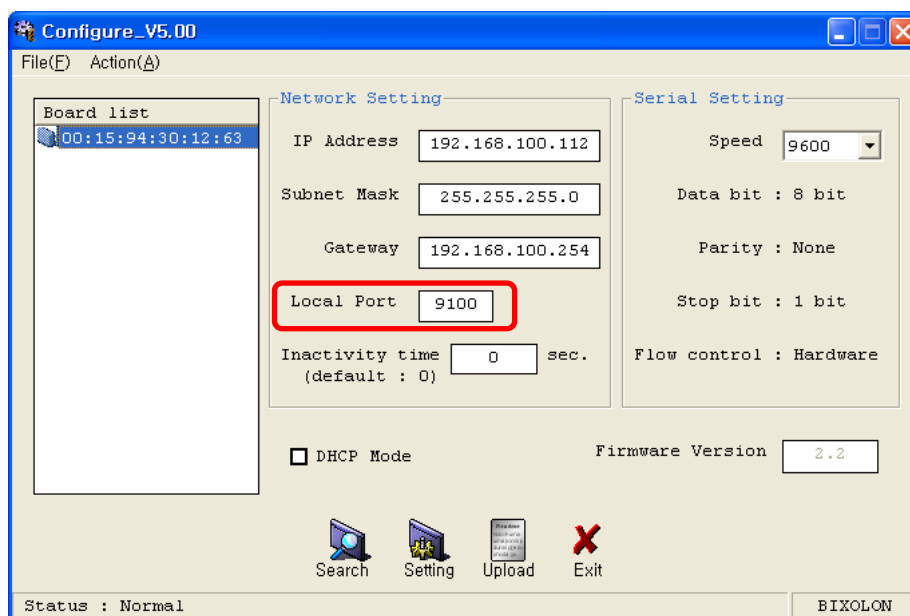
- (1) 1~126.xxx.xxx.xxx: Subnet Mask: 255.0.0.0
- (2) 128~191.xxx.xxx.xxx: Subnet Mask: 255.255.0.0
- (3) 192~223.xxx.xxx.xxx: Subnet Mask: 255.255.255.0

For example, when the IP address is 192.168.192.321,
Subnet mask is 255.255.255.0.

- If you are not aware of Gateway,

- (1) When the Network is connected to Internet (Router or Server computer),
refer to the Network setting of other computers on the Network.
- (2) When the Network is connected to Internet (Router or Server computer),
enter 0.0.0.0 for Gateway.

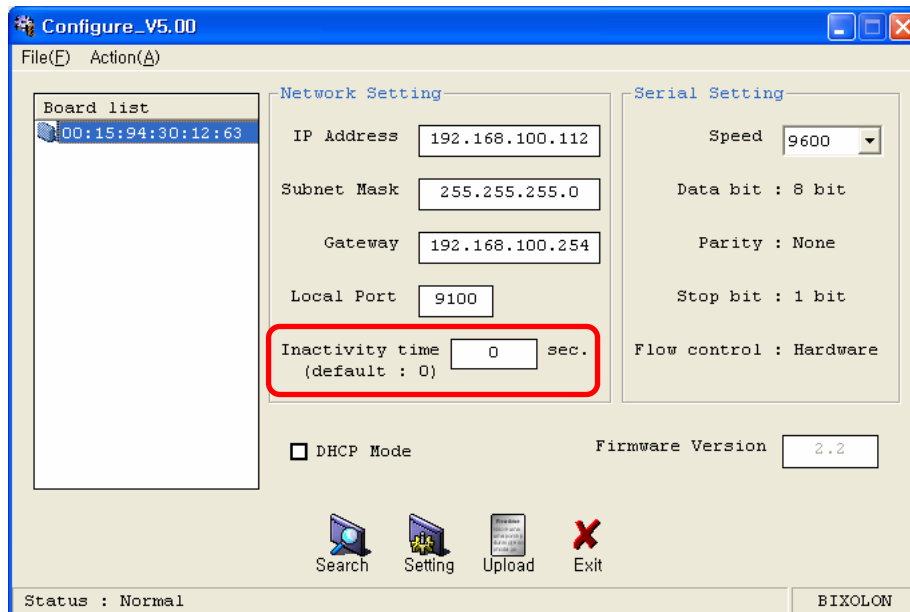
5) Enter value at **Local Port**.



[Note]

- Default value is **9100**. Choose from 0 to 32767.

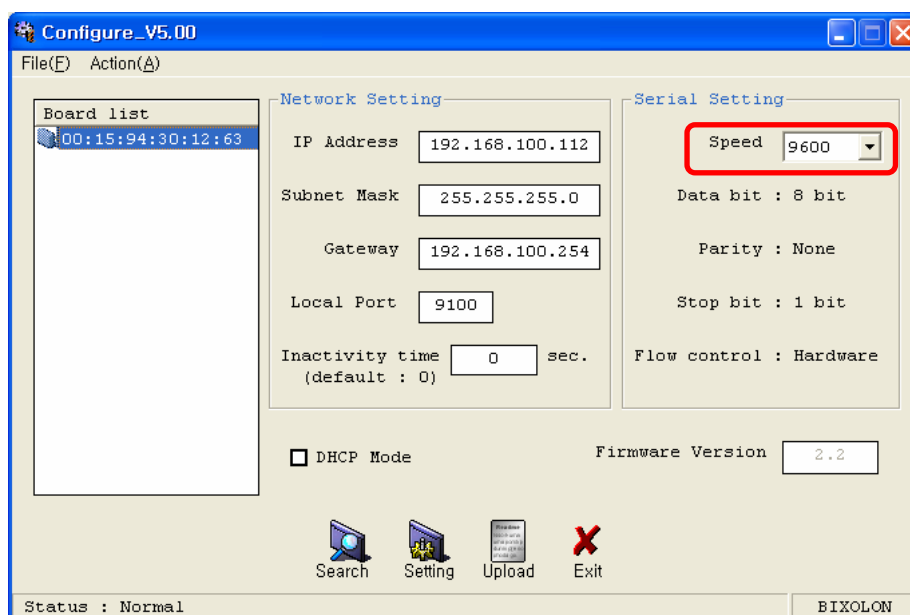
6) Set Inactivity Time as '0'.



[Note]

- Default value is 0. Choose from 0 to 32767.
- When you set Inactivity time, Ethernet interface will disconnect by force after designated time. When you set 0, Forced disconnection function is not available.

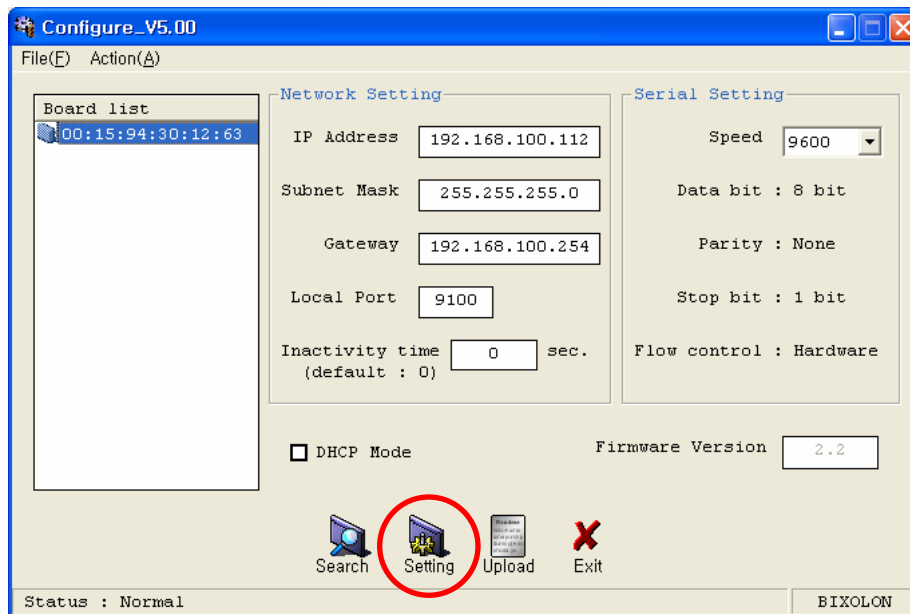
7) Set baud rate (Speed) at **Serial Setting**



[Note]

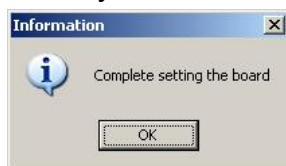
- The baud rate (Speed) should be same as the baud rate of the printer. (Refer to [Appendix 1])
- Highest baud rate (Speed) can be used.
- The baud rate (Speed) of IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E don't need to setting.

8) When setting finishes, click **Setting**.



[Note]

Successfully finished set up

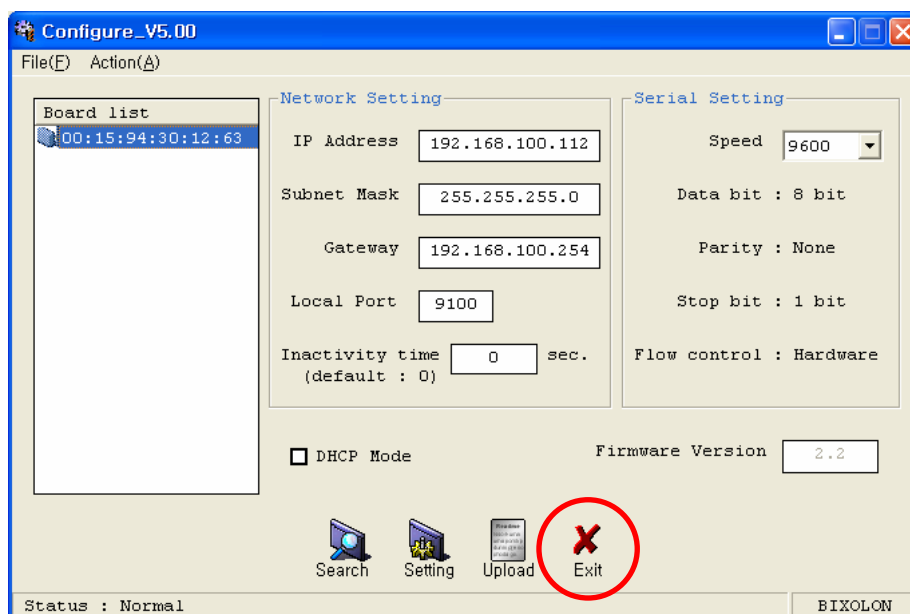


Unsuccessfully finished set up



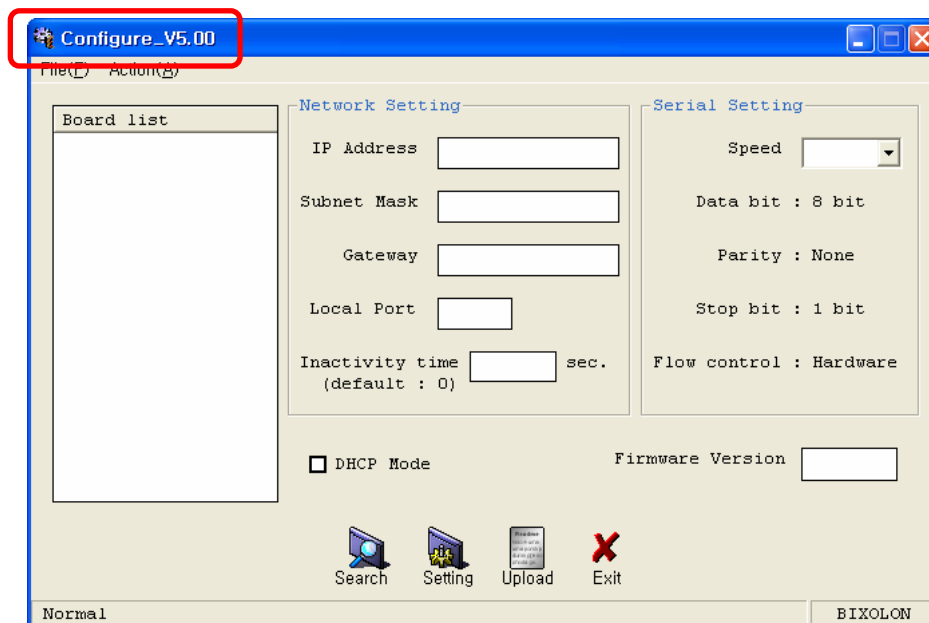
- When setting doesn't finish correctly, try again.

9) Click **Exit** to finish set up.



6-2 DHCP interface set up

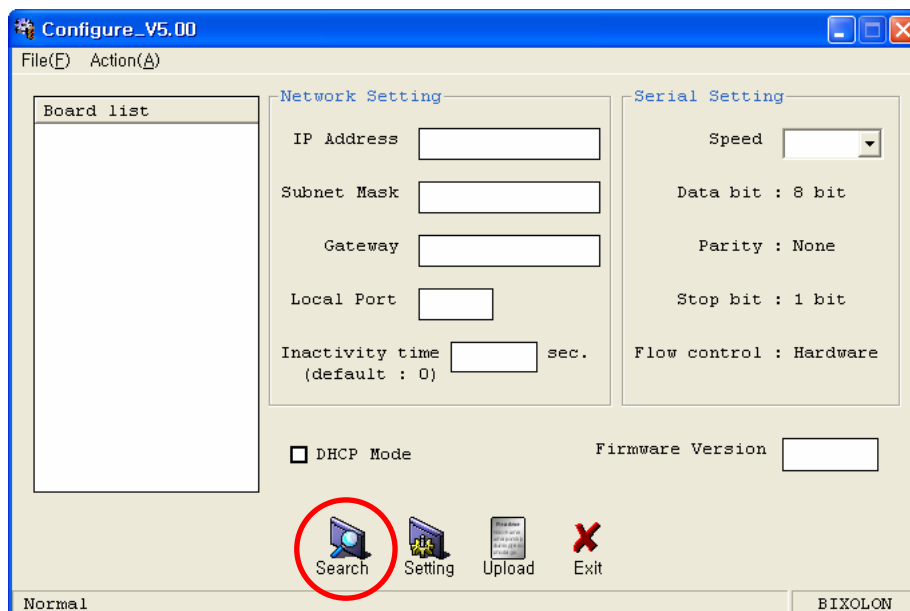
- 1) Turn on the printer.
- 2) Execute **Configure Tool**.



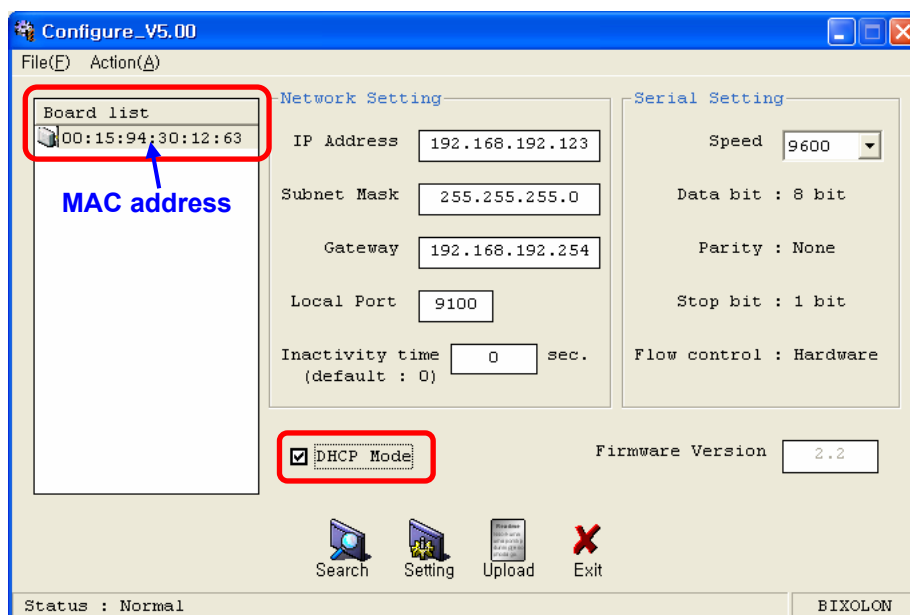
[Note]

- Use proper Configuration Tool dependent on hardware version

- 3) Click **Search**.



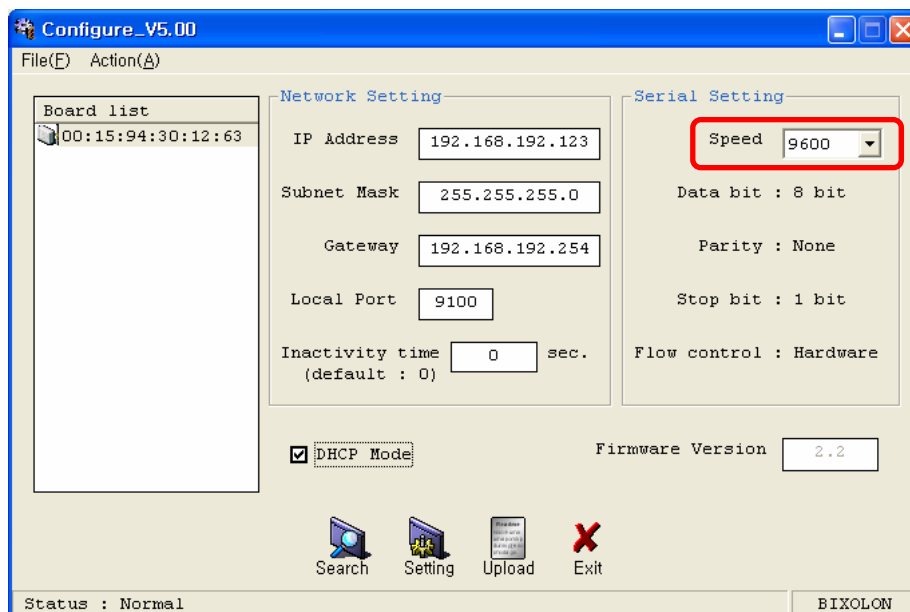
4) Select MAC Address in **Board list** and check at **DHCP Mode**.



[Note]

- If many MAC addresses appear, refer to the MAC address on the label of the interface card.
- Ask the Network administrator IP and its related information.

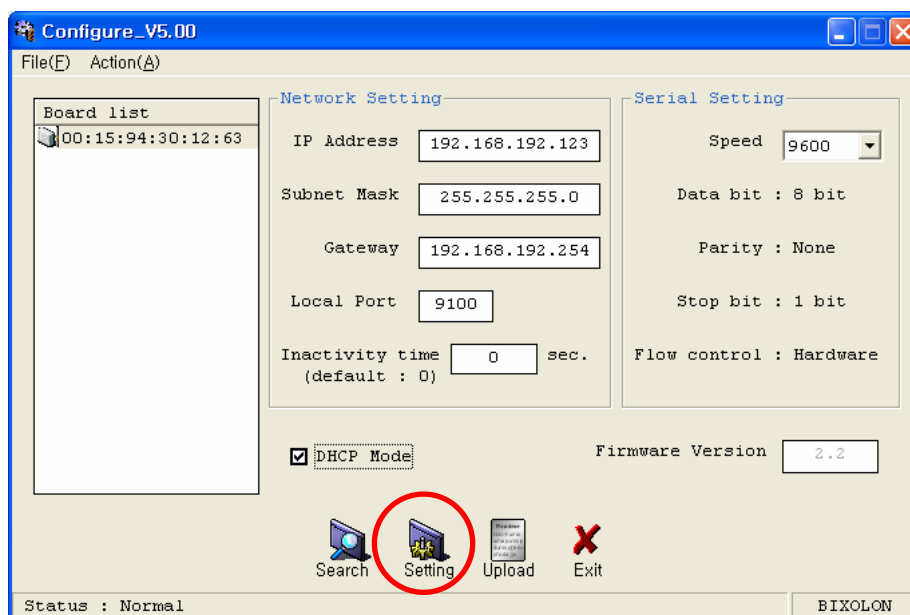
5) Set baud rate at “**Speed**.”



[Note]

- The baud rate (Speed) should be same as the baud rate of the printer. (Refer to [Appendix 3])
- Highest baud rate (Speed) can be used.
- The baud rate (Speed) of IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E don't need to setting.

6) When setting finishes, click **Setting**.

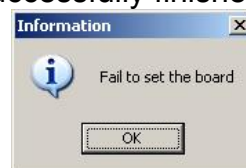


[Note]

Successfully finished set up



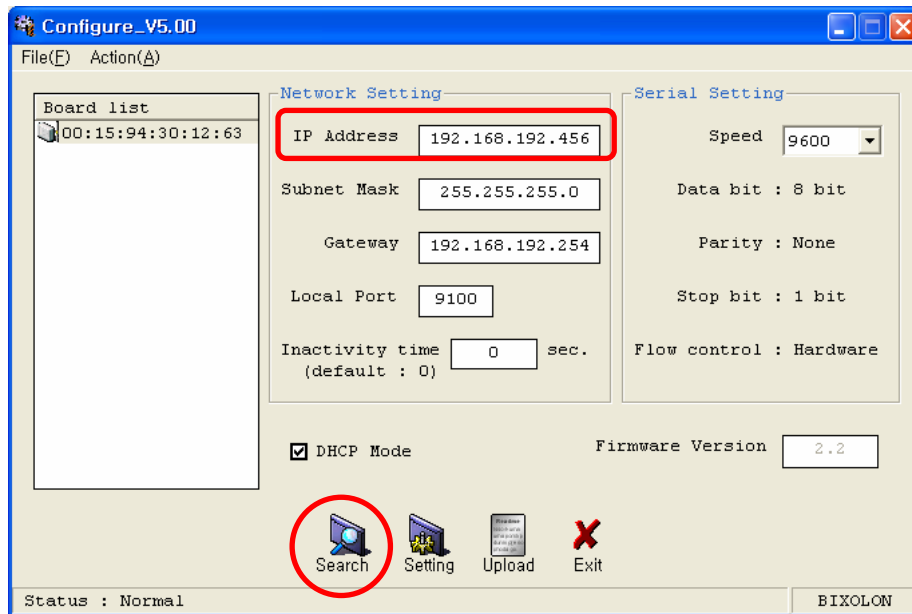
Unsuccessfully finished set up



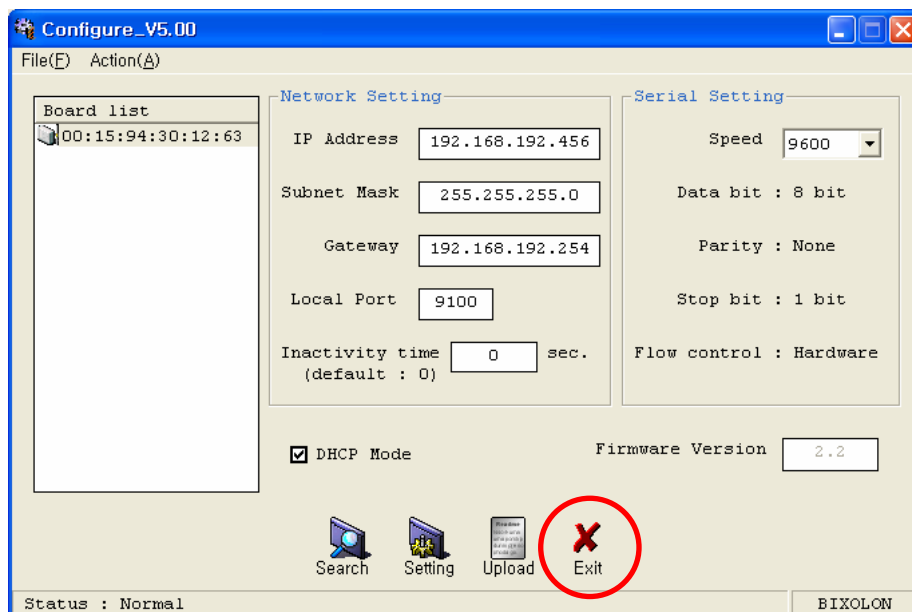
- When setting doesn't finish correctly, try again.

7) Wait approximately 10 or more seconds until the printer receives IP from the server.

8) Click **Search** to check given IP.



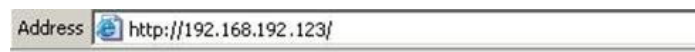
9) If the given IP is OK, click **Exit**.



7. Web Server

7-1 Static IP interface set up

- 1) Execute Internet Explorer.
- 2) Enter IP address of the printer at **Address** of Internet Explorer and click **go**.



Configuration

F/W ver.	2.2
MAC	00:15:94:30:00:0B
Source IP	192.168.192.123
Subnet Mask	255.255.255.0
Gateway IP	192.168.192.254
Local Port	9100
Inactivity Time	0
Serial speed	9600
DHCP mode	<input type="checkbox"/>

Apply

[Note]

- If you are not aware of IP address, check IP address by pushing Function key.
(Refer to 35Page)]
- Ask Network administrator IP Address and its related information.

- 3) When **Configuration** Window appears, enter new **Network Setting**.

Configuration

F/W ver.	2.2
MAC	00:15:94:30:00:0B
Source IP	192.168.192.123
Subnet Mask	255.255.255.0
Gateway IP	192.168.192.254
Local Port	9100
Inactivity Time	0
Serial speed	9600
DHCP mode	<input type="checkbox"/>

Apply

[Note]

- If you are not aware of Subnet Mask, refer to the below.

- When the IP address is

(1) 1~126.xxx.xxx.xxx: Subnet Mask: 255.0.0.0

(2) 128~191.xxx.xxx.xxx: Subnet Mask: 255.255.0.0

(3) 192~223.xxx.xxx.xxx: Subnet Mask: 255.255.255.0

For example, when the IP address is 192.168.192.321,
Subnet mask is 255.255.255.0.

- If you are not aware of Gateway,

(1) When the Network is connected to Internet (Router or Server computer),
refer to the Network setting of other computers on the Network.

(2) When the Network is connected to Internet (Router or Server computer),
enter 0.0.0.0 for Gateway.

4) Enter value of **Local Port**.

The screenshot shows a 'Configuration' window with the following fields and values:

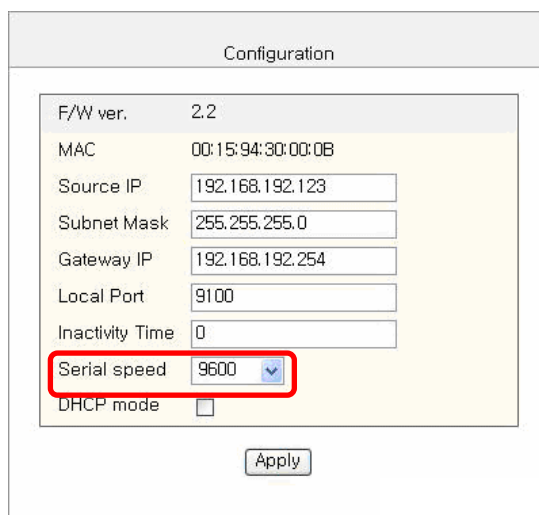
F/W ver.	2.2
MAC	00:15:94:30:00:08
Source IP	192.168.192.123
Subnet Mask	255.255.255.0
Gateway IP	192.168.192.254
Local Port	9100
Inactivity Time	0
Serial speed	9600
DHCP mode	<input type="checkbox"/>

An 'Apply' button is located at the bottom right of the configuration area. The 'Local Port' field is highlighted with a red rectangular box.

5) Set **Inactivity Time**.

The screenshot shows the same 'Configuration' window as above, but with the 'Inactivity Time' field highlighted with a red rectangular box. The values in the other fields remain the same.

6) Set baud rate (**Serial speed**).

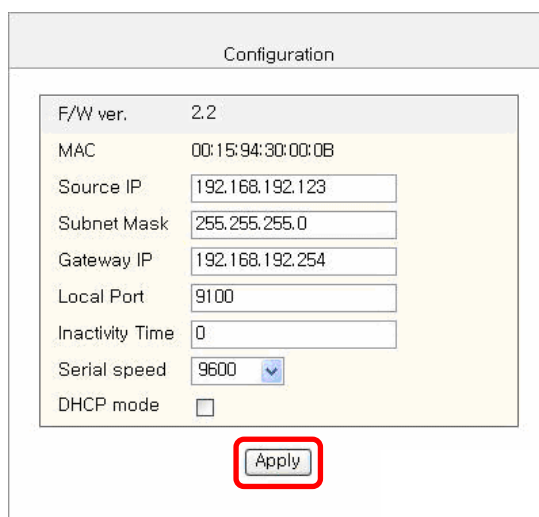


The screenshot shows a 'Configuration' window with a yellow background. It contains the following fields: F/W ver. (2.2), MAC (00:15:94:30:00:08), Source IP (192.168.192.123), Subnet Mask (255.255.255.0), Gateway IP (192.168.192.254), Local Port (9100), Inactivity Time (0), Serial speed (9600), and DHCP mode (unchecked). The 'Serial speed' dropdown menu is highlighted with a red rectangular box. An 'Apply' button is located at the bottom right of the configuration area.

[Note]

- The baud rate (Speed) should be same as the baud rate of the printer.
- The baud rate (Speed) of IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E don't need to Setting.

7) When setting finishes, click **Apply**.



This screenshot is identical to the previous one, showing the 'Configuration' window with the same fields. In this image, the 'Apply' button at the bottom right is highlighted with a red rectangular box.

[Note]

- When the setting finishes successfully, the following message appears.

Please press here if you would like to back to the configuration

8) If you click the message, you can check your configuration setting.

[Note]

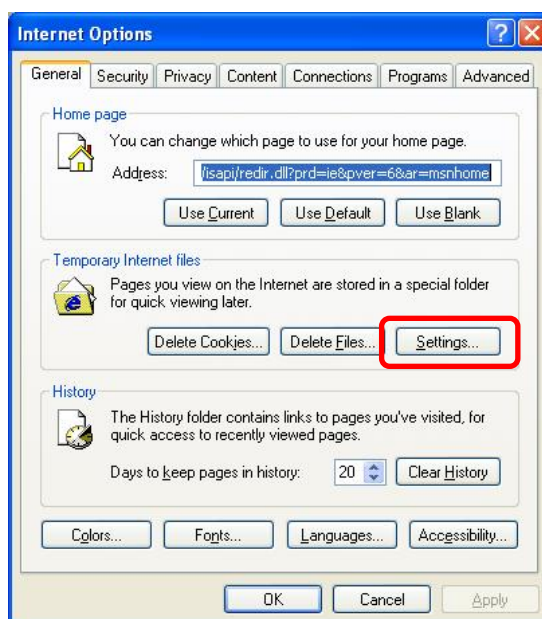
- If any change was not found after setting on Web Server, check the bellows;

(1) Execute Internet Explorer.

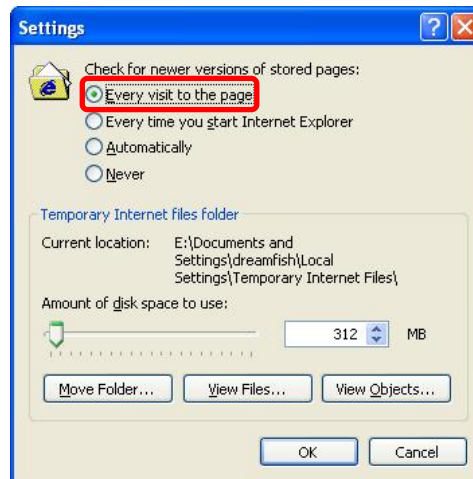
(2) Internet Explorer **Menu** → **Tools** → **Internet options**.



(3) **General tab** → **Temporary internet file** → **Settings**



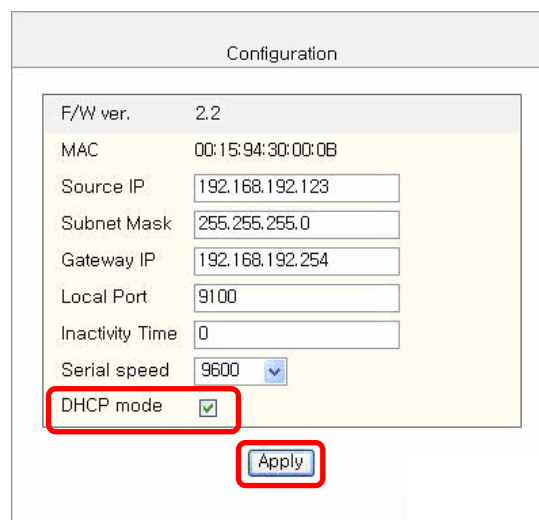
(4) Check for newer version of stored pages → Click **Every visit to the page**.



(5) Click **Refresh** in Internet Explorer.

7-2 DHCP interface set up

1) Check at **DHCP mode** and click **Apply**.



2) Push the Function Key on the interface 10 or more seconds from finishing set up.
Enter given IP address at address of Internet Explorer to enter web server.

8. Ethernet test by using Windows test page

If you don't have any test program to check printer's performance, you can use Windows driver. It is available for Windows 2000, XP, 2003 Server, VISTA, 7.

- 1) Install Windows driver of the printer. When the driver installation finishes, reboot the computer.

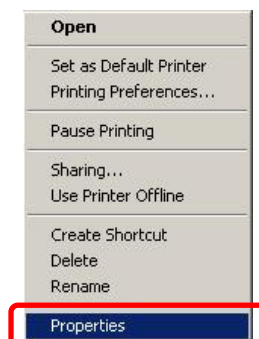
[Note]

- Latest file versions can find drivers at <http://www.bixelon.com>

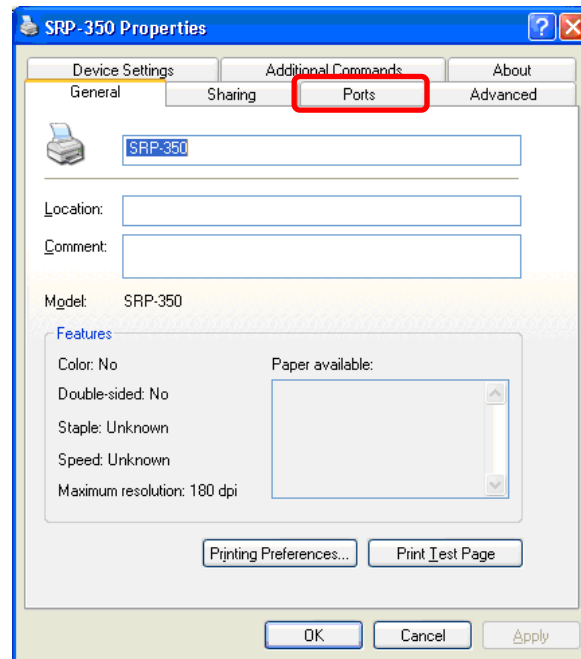
- 2) **Start > Control panel > Printers and Faxes**



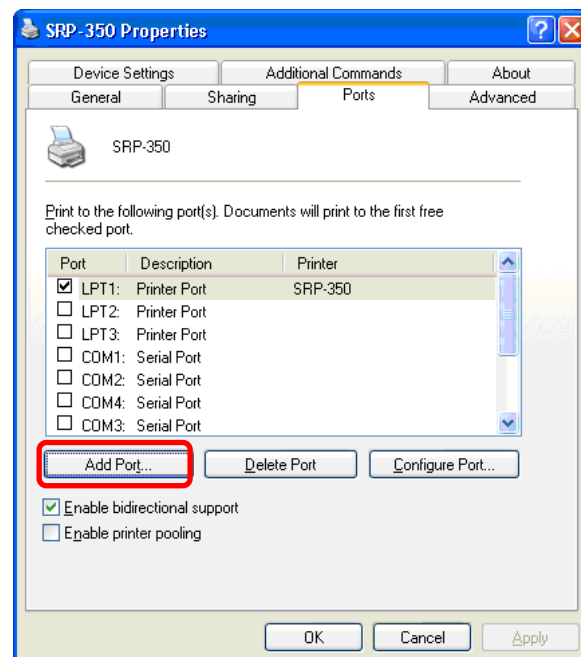
- 3) Select the printer icon and click it with the right button to select **properties**.



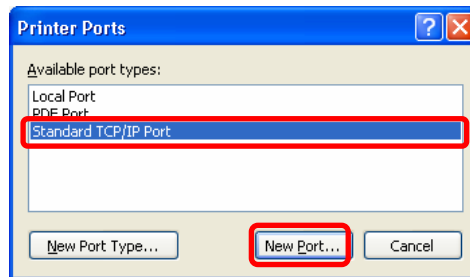
4) Select **Ports** tab.



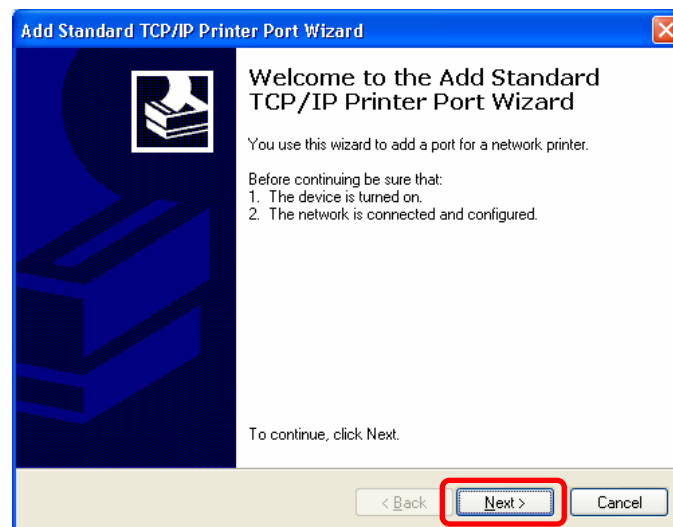
5) Click **Add Port**.



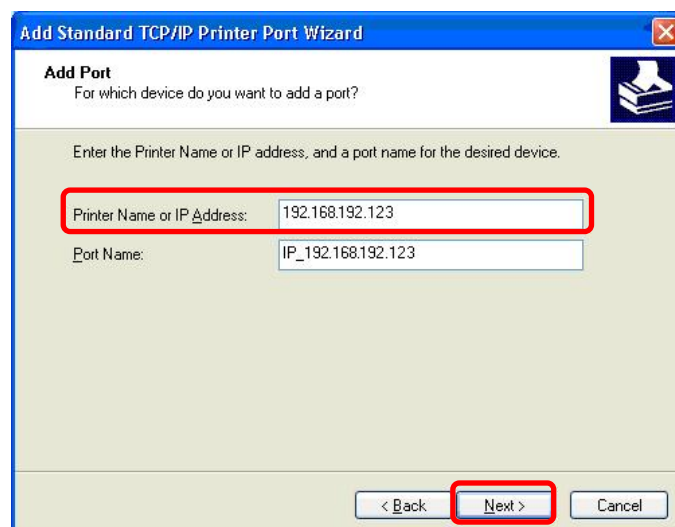
6) Select **Standard TCP/IP Port** and click **New port**.



7) When standard TCP/IP printer add wizard window pops up, click **Next**.



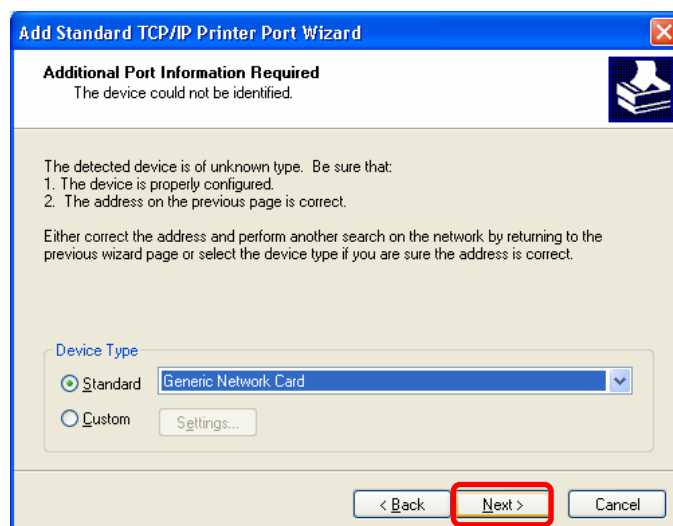
8) Enter printer IP at **Printer Name or IP Address** and click **Next**.



[Note]

- Enter same IP address as the Ethernet interface card. Enter only at **Printer Name or IP Address**.

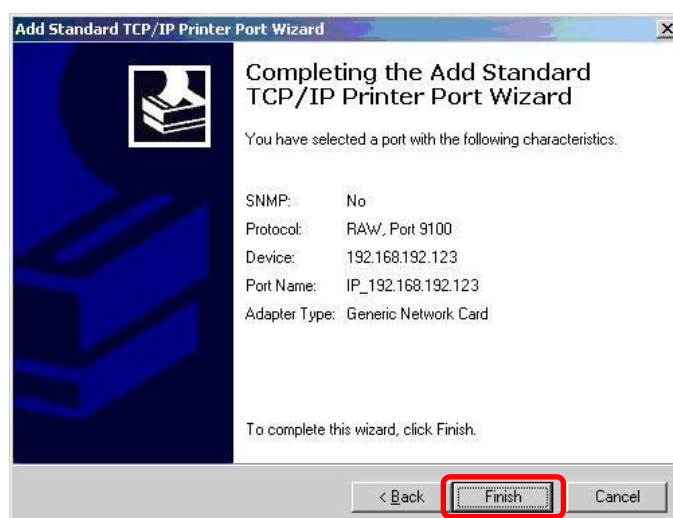
9) Click **Next**.



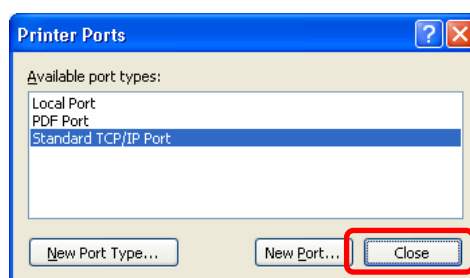
[Note]

- Click **Next** without any selection nor change.

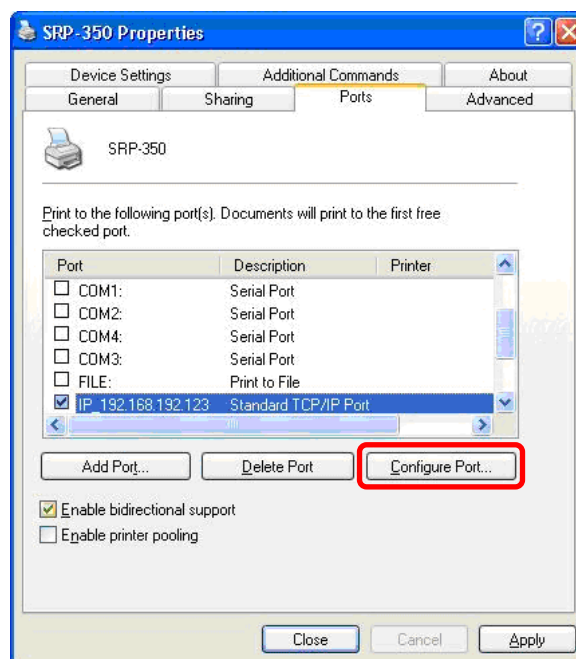
10) Click **Finish**.



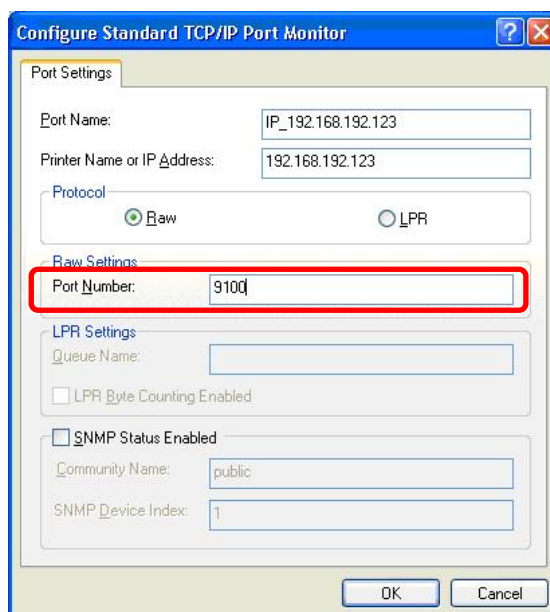
11) Click **Close** to close Printer port window.



12) Click **Configure Port**.



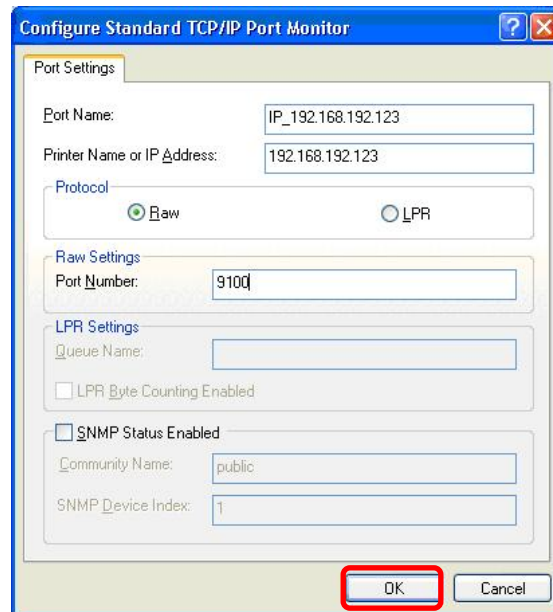
13) Enter same port number as the value of Local Port of the Ethernet interface at **Raw Setting**.



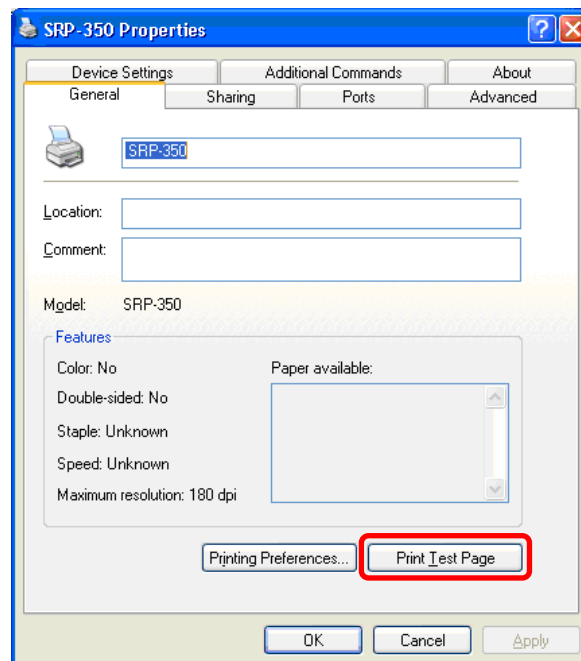
[Note]

- There is no change except **Raw Setting**.

14) Click **OK**.

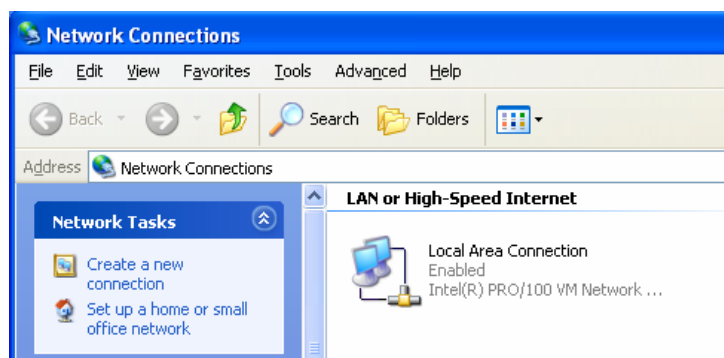


15) Select General tab and click **Print Test Page** to check if the printer works properly.

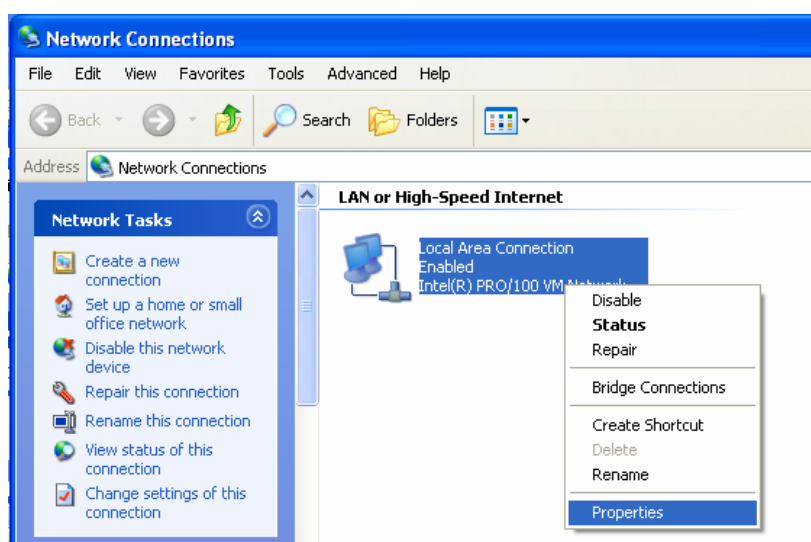


9. How to check Static IP or DHCP

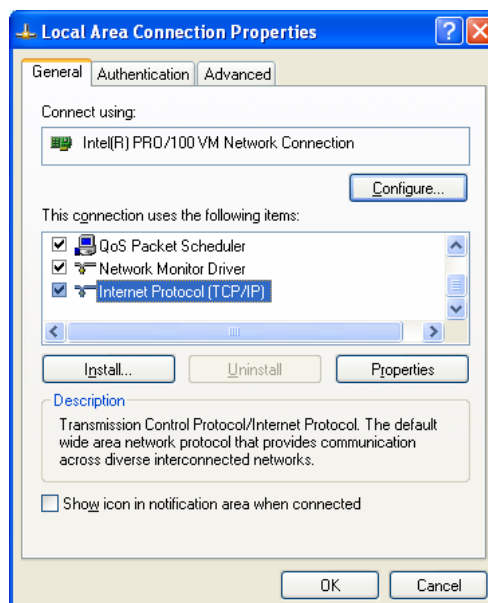
1) Start > Control panel > Network Connections.



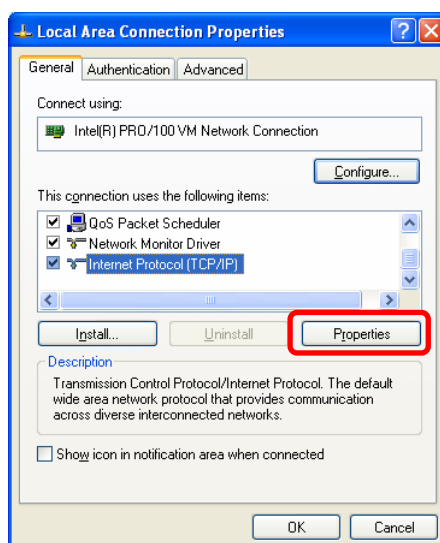
2) Select: “**Local Area Connection** and click it with the right button to select **properties**.”



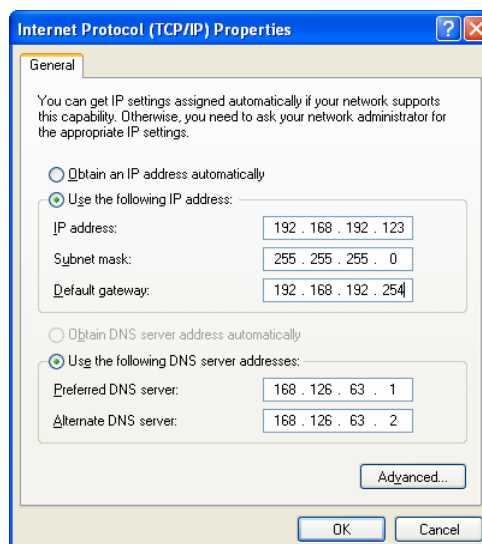
3) Select General tab and Select “**Internet Protocol(TCP/IP)**”.



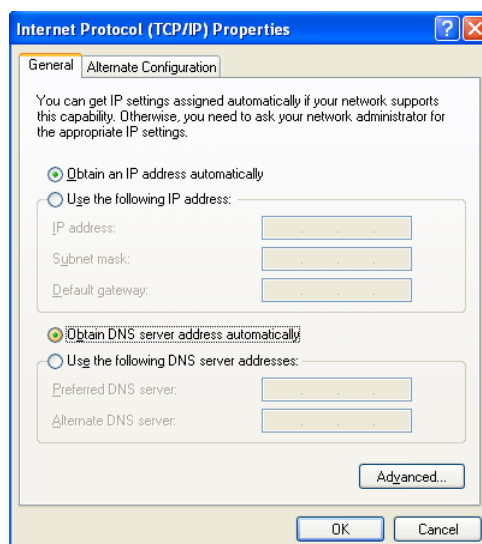
4) Click “**Properties**”.



5) Information of network registration with **Static IP**



6) Information of network registration with **DHCP**



10. Factory Reset

1) Default setting after factory reset

- Activate DHCP mode
- Local Port: 9100
- Inactivity Time: 0
- Speed (Except IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E)
 - SRP-770,770II,770IIE,SLP-T400,T403,D400,D403: 230400 bps
 - SRP-270,SRP-275,SRP-280,SRP-350,SRP-350plus,SRP-370,SRP-372: 9600 bps

2) How to reset

(1) Turn off the printer

(2) Turn on the printer while pressing Function Key

[Note]

- Press Function key 3 more seconds after turning on the printer.

(3) Wait 10 seconds until new IP address is allocated to the printer.

- The IP address will be allocated automatically under DHCP mode.

[Note]

- DHCP Network environment

Connect to web-server with newly allocated IP address.

Check new IP address by pressing Function key

- Static IP Network environment

The IP address will not be allocated automatically.

Set up Static IP with Configuration utility.

(4) Print Network setting information by pressing Function key

Connect web-server to change any network setting

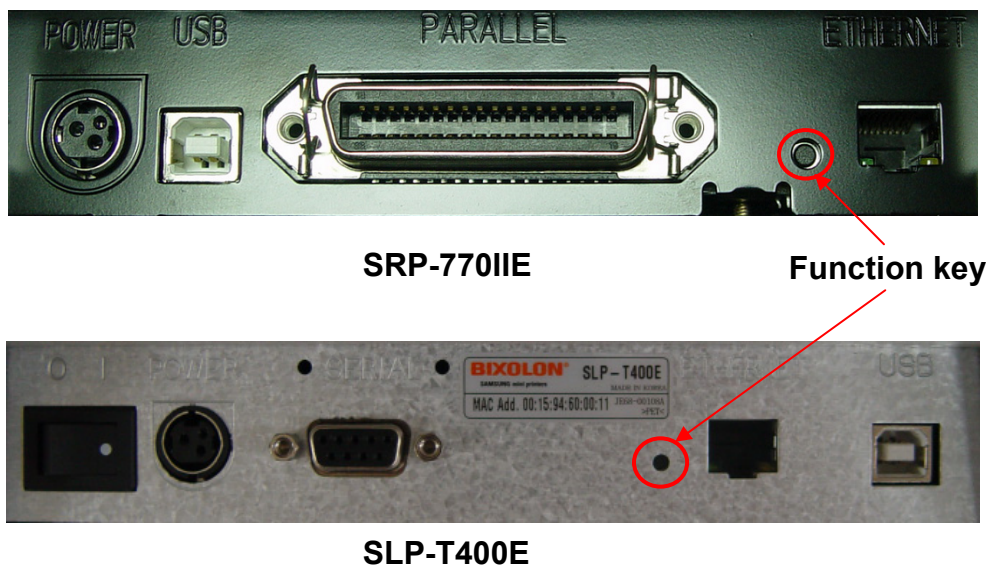
[Note]

- Check if the baud rate of the printer is set same as below.
(Refer to [Appendix 3])

11. Function Key set up

1) How to use

- (1) Turn on the printer
- (2) Wait 10 or more seconds until the Ethernet interface boots up
- (3) Push the Function key



- (4) The settings will be printed only one time since the printer is turned on.
- (5) Turn off and on the printer to print them again.

2) Printed settings

- MAC address
- IP address
- Subnet Mask
- Gateway
- Port
- Inactivity time
- Serial speed
- Firmware Version

[Appendix 1] Details of interface card

Item	Details
Network interface	10/100 Base-T All in one (Auto detection)
Protocol	TCP, IP, ICMP,IGMP, ARP, HTTP
IP mode	static IP, DHCP (Dynamic Host Configuration Protocol)
RX buffer	2K Byte
Flow control	Hardware (RTS/CTS)
Baud rate (Only Ethernet To Serial)	1200 ~ 230400 bps

[Appendix 2] Hardware version and Configuration Tool

Configuration Tool file	Interface Type	Hardware Version	Interface Card	Printer	Network Interface
Configure_V5.x Web Server	Ethernet To Parallel	V1.x.x	IFA-EP TYPE	SRP-350 SRP-350Plus	10/100 Base-T All in one
			IFC-EP TYPE	SRP-275	
		ON Board	-	SLP-T400E,T403E, D400E,D403E	
	Ethernet To Serial	V5.x.x	IFA-E TYPE (Discontinued)	SRP-270,280,350 SRP-370,372 SRP-350Plus	
			IFC-E TYPE (Discontinued)	SRP-275	
		V3.x.x	IFA-EO TYPE	SRP-770,770II SLP-T400,T403 D400,D403	
		ON Board	-	SRP-770IIE	
	Configure_V3.x	Ethernet To Serial	V3.x.x	IFA-E TYPE (Discontinued)	
IFC-E TYPE (Discontinued)				SRP-275	
IFA-EO TYPE				SRP-770,770II SLP-T400,T403 D400,D403	
Ethernet_V2.0	V2.x.x		RIF-350E (Discontinued)	SRP-270,280,350	10 Base-T
Ethetnet_V1.3	V1.x.x		RIF-350E (Discontinued)	SRP-270,280,350	10 Base-T

[Note]

-In case the hardware version is V5.X.X or higher, use Configure_V5.x or Web server.
You can simply use Web Server on Internet Explorer.

[Appendix 3] Setting up serial communication

1) Printer DIP switch set up

Printer	Baud rate & DSW set up			Handshaking & Parity
SRP-350	Baud rate	DSW 1-7	DSW 1-8	
	57600bps	OFF	ON	
	38400bps	ON	ON	
	19200bps	OFF	OFF	
	9600bps	ON	OFF	
SRP-350plus	Baud rate	DSW 1-6	DSW 1-7	DSW1-8
	115200bps	ON	ON	ON
	57600bps	OFF	OFF	ON
	38400bps	OFF	ON	ON
	19200bps	OFF	OFF	OFF
	9600bps	OFF	ON	OFF
	4800bps	ON	OFF	ON
	2400bps	ON	OFF	OFF
SRP-270 SRP-280	Baud rate	DSW 2-7	DSW 2-8	
	19200bps	ON	ON	
	9600bps	OFF	OFF	
	4800bps	ON	OFF	
	2400bps	OFF	ON	
SRP-370 SRP-372	Baud rate	DSW 1-1	DSW 1-2	
	115200bps	ON	ON	
	38400bps	OFF	ON	
	19200bps	ON	OFF	
	9600bps	OFF	OFF	
SRP-275	Baud rate	DSW 2-7	DSW 2-8	
	19200bps	ON	OFF	
	9600bps	OFF	OFF	
	4800bps	OFF	ON	
	2400bps	ON	ON	
SRP-770	Baud rate	DSW 2-1	DSW 2-2	
	115200bps	ON	ON	
	57600bps	OFF	ON	
	19200bps	ON	OFF	
	9600bps	OFF	OFF	
SRP- 770II, 770IIE	Baud rate	DSW 2-1	DSW 2-2	
	230400bps	OFF	ON	
	115200bps	ON	ON	
	19200bps	ON	OFF	
	9600bps	OFF	OFF	
SLP- T400,T403, D400,D403	Baud rate	DSW 2-1	DSW 2-2	
	230400bps	OFF	ON	
	115200bps	ON	ON	
	19200bps	ON	OFF	
	9600bps	OFF	OFF	

DTR/DSR : SW 1-3 OFF
8 data bit : SW 1-4 OFF
None parity : SW 1-5 OFF

DTR/DSR: SW1-2 off
8 data bit: SW1-3 off
none parity: SW1-4 off

DTR/DSR : SW 2-3 OFF
8 data bit : SW 1-4 OFF
None parity : SW 1-5 OFF

DTR/DSR : SW 1-3 OFF
8 data bit : MSW 9
None parity : MSW 9
[Note]
- Use Memory SW to change

DTR/DSR : SW 2-3 OFF
8 data bit : SW 2-4 OFF
None parity : SW 2-5 OFF

RTS/CTS: SW2-3 ON
8 data bit
none parity

DTR/DSR
8 data bit
None parity
Fixed

DTR/DSR
8 data bit
None parity
Fixed

2) Set the baud rate (Except IFA/C-EP TYPE, SLP-T40*E, SLP-D40*E)

- SRP-270,275,280: Max. 19200 bps
- SRP-350: Max. 57600 bps
- SRP-350Plus: Max. 115200 bps
- SRP-370,372: Max. 115200 bps
- SRP-770: Max. 115200bps
- SLP-T400,T403,D400,D403: Max 115200 bps
- SRP-770II,770IIE: Max 230400 bps

[Note]

- The baud rate (Serial speed) of the interface card is from 1200 ~ 230400 bps.
- The baud rate (Serial speed) of the printer can be set with DIP switch

3) Virtual Driver

It converts output of Serial (COM) port into output of Ethernet (TCP/IP) port.
It is available for Windows 2000, XP, 2003 Server, VISTA, 7.